



## AMENDMENTS TO THE SPECIFICATION

Please amend the specification as follows:

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**Replace the last paragraph of page 1 of the specification with the following paragraph:**

The first embodiment of the present invention is an ultrasonic cleaning device comprising a housing, said housing comprising a gripping gripping means; a cleaning head adapted to rest on and be moved over surface to be cleaned, wherein said cleaning head is adapted to be removably mounted to said housing and the minimum surface area of said cleaning head to rest on said surface is greater than about  $6.25 \text{ cm}^2$ ; a transducer means mounted in said housing for converting electrical energy to ultrasonic energy said cleaning head at an ultrasonic frequency; and a power supply means for supplying direct current to said transducer means, wherein said power supply means is associated with said device.

**Replace page 2 of the specification with the following:**

The second embodiment of the present invention is an ultrasonic cleaning device comprising a first housing, said first housing comprising a gripping gripping means; a cleaning head adapted to rest on and be moved over surface to be cleaned, and said cleaning head is adapted to be removably mounted to said first housing and the minimum surface area of said cleaning head to rest on said surface is greater than about  $6.25 \text{ cm}^2$ ; a second housing, wherein said first housing is associated with said second housing and said second housing comprises a transducer means mounted in said second housing for oscillating said cleaning head at an ultrasonic frequency; and a power supply means for supplying direct current to said transducer means, wherein said power supply means is associated with said device.

The third embodiment of the present invention is an ultrasonic cleaning product comprising:

- (a) a liquid or gel cleaning composition comprising a cleaning agent; and
- (b) a hand held ultrasonic cleaning device comprising a housing, said housing comprising a gripping gripping means; a cleaning head adapted to rest on and be moved over surface to be cleaned, wherein said cleaning head is adapted to be removably mounted to said housing and the minimum surface area of said cleaning head to rest on said surface is greater than about  $6.25 \text{ cm}^2$ ; a transducer means mounted in said housing for oscillating said cleaning head at an ultrasonic frequency; and a power supply means for supplying direct current to said transducer means, wherein said power supply means is associated with said device.

The fourth embodiment of the present invention is an ultrasonic cleaning product comprising;

- (a) a liquid or gel cleaning composition comprising a cleaning agent; and
- an ultrasonic cleaning device comprising a first housing, said first housing comprising a gripping gripping means; a cleaning head adapted to rest on and be moved over surface to be cleaned, and said cleaning head is adapted to be removably mounted to said first housing and the minimum surface area of said cleaning head to rest on said surface is greater than about  $6.25 \text{ cm}^2$ ; a second housing, wherein said first housing is associated with said second housing and said

**Replace the first three paragraphs of page 3 of the specification with the following:**

- (b) second housing comprises a transducer means mounted in said second housing for oscillating said cleaning head at an ultrasonic frequency; and a power supply means for supplying direct current to said transducer means, wherein said power supply means is associated with said device.[.]

The fifth embodiment of the present invention is an ultrasonic cleaning device comprising a housing, said housing comprising optionally a gripping gripping means, a retaining means for removably retaining tableware; a transducer means mounted in said housing for oscillating said housing at an ultrasonic frequency; and a power supply means for supplying direct current to said transducer means, wherein said power supply means is associated with said device.

The sixth embodiment of the present invention is an ultrasonic cleaning device comprising a housing, said housing is adapted to be at least partially immersed in an aqueous environment, and said housing comprises optionally a gripping gripping means, a retaining means for removably retaining tableware; a transducer means mounted in said housing for oscillating said aqueous environment at an ultrasonic frequency; and a power supply means for supplying direct current to said transducer means, wherein said power supply means is associated with said device.

**Replace the last paragraph on page 4 of the specification with the following:**

#### Detailed Description of the Invention

As it was stated previously Referring to Figures 1 - 4, the first embodiment of the present invention is an ultrasonic cleaning device 1 comprising a housing 10, said housing 10 comprising a gripping gripping means 20; a cleaning head 30 adapted to rest on and be moved over the surface to be cleaned, wherein said cleaning head 30 is adapted to be removably mounted to said housing 10 and the minimum surface area of said cleaning head 30 to rest on said surface is greater than about 6.25 cm<sup>2</sup>, preferably greater than about 20 cm<sup>2</sup>; preferably said gripping gripping means 20 is at the proximal end of said housing 10 and said cleaning head 30 is at the distal end of said housing 10; a transducer means 50 mounted in said housing 10 for oscillating said cleaning head 30 at an ultrasonic frequency; and a power supply means 60 for supplying direct current to said

**Replace page 5 of the specification with the following:**

transducer means 50, wherein said power supply means 60 is associated with said device 1, preferably said power supply means 60 is mounted in said housing 10.

It is also preferred that the cleaning device 1 further comprises at least one, more preferably at least two, solution storage means 70 associated with said device 1, and said solution storage means 70 contains at least one, more preferably at least two, cleaning compositions suitable for cleaning said surface; and at least one, more preferably at least two, dispensing means (not shown) mounted in said housing 10 for supplying said at least one cleaning composition from said at least one solution storage means 70 to said surface prior to or at the same time as said surface is contacted by said cleaning head 30. In one aspect it is preferred that the solution storage means 70 is adapted to be removably mounted to said housing 10. In another aspect it is preferred that the solution storage means 70 is mounted in said housing 10. One advantage of having two or more solution storage means 70 as shown in Figure 1 is that incompatible cleaning ingredients, such as bleach and enzymes, which would ordinarily not be possible to combine in a cleaning composition without the loss of cleaning activity, can be put in different storage means. This allows the compositions to gain the cleaning benefits of these incompatible ingredients as they only come into contact with one another either just before dispensing or when they are applied to the surface. This means that any loss in cleaning potential would be minimized.

As it was stated previously, the second embodiment of the present invention is an ultrasonic cleaning device comprising a first housing 80 as shown in Figure 4, said first housing 80 comprising a gripping gripping means 20; a cleaning head 30 adapted to rest on and be moved over the surface to be cleaned, and said cleaning head 30 is adapted to be removably mounted to said first housing 10 and the minimum surface area of said cleaning head 30 to rest on said surface is greater than about 6.25 cm<sup>2</sup>; preferably the gripping gripping means 20 is at the proximal end of the

first housing 80 and the cleaning head 30 is at the distal end of the first housing 80; a second housing 90, wherein said first housing 80 is associated with said second housing 90 and said second housing 90 comprises a transducer means 50 mounted in said second housing 90 for oscillating said cleaning head 30 at an ultrasonic frequency; and a power supply means 60 for supplying direct current to said transducer means 50, wherein said power supply means 60 is associated with said device 1, preferably the power supply means 60 is mounted in said second housing 90.

**Replace page 6 of the specification with the following:**

Referring to Figures 1 and 4, [I] it is also preferred that the cleaning device 1 according to the second aspect further comprise[s] at least one solution storage means 70 associated with said device 1, and said at least one, more preferably at least two, solution storage means 70 contains at least one, more preferably at least two, cleaning compositions suitable for cleaning said surface; and at least one, more preferably at least two, dispensing means mounted in said first housing 80 for supplying said at least one cleaning composition from said at least one solution storage means 70 to said surface prior to or at the same time as said surface is contacted by said cleaning head 30. In one aspect it is preferred that the solution storage means 70 is adapted to be removably mounted to said first housing 80. In one aspect it is preferred that the solution storage means 70 is adapted to be removably mounted to the second housing 90. In another aspect it is preferred that the solution storage means 70 is mounted in the first housing 80. In another aspect it is preferred that the solution storage means 70 is mounted in the second housing 90. This use of more than one solution storage means 70 has all the advantages of using incompatible ingredients as was noted previously above.

In the second aspect it is preferred that the first housing 80 be capable of being hand held. In one preferred form the first housing 80 is stored in the second housing 90 while not in use. While in use the first housing 80 is used to clean the surface while the second housing 90 stores and supplies the cleaning composition(s), power and ultrasonic energy to the first housing 80 to clean the surface.

As it was stated previously, the third and fourth embodiments of the present invention are ultrasonic cleaning products comprising a liquid cleaning composition comprising a cleaning agent; and the hand held ultrasonic cleaning device 1 according to the first aspect or the ultrasonic cleaning device 1 according to the second aspect.

Preferably the cleaning agent is present in the liquid cleaning composition in an effective amount, more preferably from about 0.0001% to about 99.9%, even more preferably from about 0.001% to about 55%, even more preferably still from about 0.005% to about 45% by weight. These cleaning compositions can comprise additional cleaning additives and these are exemplified in greater detail hereafter. The liquid cleaning composition in the ultrasonic cleaning products can be, for example, in the optional at least one solution storage means 70, in another container in

**Replace page 7 of the specification with the following:**

the same product and directly added to the surface to be cleaned, in another container in the same product and made into an aqueous solution in which the surface is immersed, in another container in the same product and applied to by the user from another container to the cleaning head 30 either neat or in another container in the same product and as an aqueous solution. These are merely some possible examples and not intended to be limiting.

It is preferred that these ultrasonic cleaning products further comprise instructions for using the product. One preferred set of instructions comprises the steps of

- (i) applying an effective amount of said liquid cleaning composition to said surface;

- (ii) imparting ultrasonic waves to said surface using said device 1; and
- (iii) optionally, rinsing the surface with an aqueous solution.

Another, preferred set of instructions comprises the steps of:

- (i) using said device 1 to apply an effective amount of said liquid cleaning composition to said surface concurrently and coterminous with said cleaning head 30;
- (ii) moving said cleaning head 30 over and maintain contact thereto said surface and
- (iii) optionally, rinsing the surface with an aqueous solution.

These instructions are suitable for incorporation with ultrasonic cleaning products based on either the device 1 of the first or second embodiment.

As it was stated previously, the fifth embodiment of the present invention is an ultrasonic cleaning device 1 comprising a housing 10, said housing 10 comprising an optional gripping gripping means 20, a retaining means (not shown) for removably retaining tableware; a transducer means 50 mounted in said housing 10 for oscillating said housing 10 at an ultrasonic frequency; and a power supply means 60 for supplying direct current to said transducer means 50, wherein said power supply means 60 is associated with said device 1.

As it was stated previously, the sixth embodiment of the present invention is an ultrasonic cleaning device 1 comprising a housing 10, said housing 10 is adapted to be at least partially immersed in an aqueous environment, and said housing 10 comprises an optional gripping gripping means 20, a retaining means (not shown) for removably retaining tableware; a transducer means 50 mounted in said housing 10 for oscillating said aqueous environment at an ultrasonic

**Replace page 8 of the specification with the following:**

frequency; and a power supply means 60 for supplying direct current to said transducer means 50, wherein said power supply means 60 is associated with said device 1.

For the ultrasonic devices 1 the power source can be any conventional power source, such as mains power, rechargeable batteries, disposable batteries, with rechargeable battery or rechargeable batteries being preferred.

It is preferred that the surface contacted by the cleaning head 30 is a hard surface. A "hard surface" is any surface which is traditionally regarded as hard, that is tableware, such as plates, glasses, cutlery, pots and pans, and also includes other surfaces such as kitchen counter tops, sinks, glass, windows, enamel surfaces, metal surfaces, tiles, bathtubs, floors etc. More preferably, the hard surface is tableware.

The cleaning composition can comprise conventional cleaning additives and these are exemplified in greater detail hereafter. The cleaning composition can be dispensed from the solution storage means 70 automatically, or when desired by the device user. The cleaning composition can be dispensed from the solution storage means 70 into the cleaning head 30 and applied by the cleaning head 30 directly to the surface. Alternatively, the cleaning composition can be dispensed on to the surface which is not currently in contact with the cleaning head 30. Such as in front of, to either side or behind the direction the cleaning head 30 is being moved over the surface. It is preferred that cleaning composition is supplied to the surface coterminous with the cleaning head 30. Furthermore, when the device 1 does not contain storage means the cleaning composition can be either applied by the operator on to the surface, the stain/soil in need of cleaning or directly on to the cleaning head 30. The cleaning composition can be used neat or as an aqueous solution.

The cleaning head 30 can be of any form suitable for cleaning. For example the cleaning head 30 could be a sponge, steel wool, scouring pad, foam, or bristles. However, it is critical, no matter what the cleaning head 30 [be] is, that the surface area be greater than about 6.25 cm<sup>2</sup>. The cleaning head 30 is adapted to be removably mounted, this is for ease of replacement, changing head type depending on the surface and/or soil to be cleaned/removed, and for overall efficiency

and flexibility of use.

The transducer means 50 oscillates at a frequency of from about 100 Hz to about 20,000 kHz, more preferably from about 100 Hz to about 10,000 kHz, more preferably from about 150 Hz to about 2000 kHz, more preferably from about 150 Hz to about